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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,718	12/20/2001	Gerald P. Coffey	26200-11	9779

21130 7590 01/30/2004

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EXAMINER	
TSOY, ELENA	

ART UNIT	PAPER NUMBER
1762	

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No.	Applicant(s)	
	10/027,718	COFFEY, GERALD P.	
	Examiner	Art Unit	
	Elena Tsoy	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-14 and 16-20* is/are pending in the application.

4a) Of the above claim(s) *1-7* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-14 and 16-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a)☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *0104*.
4)☐ Interview Summary (PTO-413) Paper No(s). _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other:

Election/Restrictions

Applicant's election of Group II, claims 9-14, 16-20 on September 10, 2003 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 16 recites the limitation "The method of claim 11, wherein said emulsion polymer" in line 1. There is insufficient antecedent basis for this limitation in the claim. For examining purposes the phrase was interpreted as "The method of claim 9, wherein said emulsion polymer".

Claim 17, line 1, "The method of claim 15" renders the claim indefinite because it depends on canceled claim 15. For examining purposes the phrase was interpreted as "The method of claim 16".

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 9, 11, 13, 14, 16, 18, 20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 18, 19, 20, 33 of copending Application No. 10/386,387 and over claims 15-22 of copending Application No. 10/386,387. Although the conflicting claims are not identical, they are not patentably distinct from each other because they relate to the same subject matter such as coating rubber particles by mixing rubber particles with an aqueous organic pigment dispersion or an aqueous inorganic pigment dispersion thereby forming colored rubber particles; and adding an emulsion polymer to the colored rubber particles to coat the colored rubber particles with the emulsion polymer to form a protective film around the colored rubber particles.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 9, 10, 11, 14, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP62131050 in view of Shimomura et al (US 5,837,754) and JP03250069.

JP62131050 discloses a method of preparing colored resin particles of e.g. styrene acrylate resin, polyethylene resin, polypropylene resin, etc., comprising introducing the resin particles into a mixing device, wetting the resin particles with an organic solvent or plastisizer, then adding powdered inorganic or organic pigment or a dye, and mixing at 15-30°C for 1-15 min to obtain a colored particulate resin, followed by adding a synthetic resin emulsion such as an acrylic resin emulsion to the colored particulate resin and mixing at 70-160°C for 2-20 min to obtain a colored particulate resin coated with a synthetic resin film (See translation, page 3). The resultant coated colored resin particles are free from bleeding or blotting of color, has excellent flow characteristics and workability (See translation, page 2).

The Examiner Note: it is well known in the art that acrylic-styrene copolymer (I.e. cross-linked) resin is an elastomeric resin, i.e. "vulcanized rubber" resin.

JP62131050 fails to teach that the pigment or dye is added as an aqueous pigment dispersion (Claim 1); and colored resin particles are used for surface covering (Claim 18).

Shimomura et al teach that resin particles of e.g. vinyl polymer resin can be colored either with hydrophobic dye in organic solvent medium (See column 2, lines 62-67; column 3, lines 6-7) or a dispersion of e.g. organic dye in aqueous medium (See column 4, lines 36-38; column 10, lines 7-37) in an amount of 2-20 wt % of resin particles (See column 11, lines 14-20) or with a disperse dye described in JP03250069 (See column 3, lines 38-53) with such as organic or inorganic water-soluble, water-insoluble or oil-soluble dyes (See JP 03250069, Abstract, page 6, column 1, paragraph 2) thereby forming ink (surface covering material).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have mixed resin particles in JP62131050 with a dispersion of colorant in an aqueous medium with the expectation of providing the desired dispersion of colored resin particles for the use as ink since Shimomura et al teach that resin particles of e.g. vinyl polymer resin can be colored either with hydrophobic dye in organic solvent medium or in aqueous medium as described in JP03250069 with a dispersion of colorant in an aqueous medium thereby forming ink.

8. Claims 9-14, 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jakubisin et al (US 5,543,172) in view of JP62131050.

Jakubisin et al discloses a method of preparing colored rubber particles such as tire fragments (See column 2, lines 33-34) comprising mixing (See column 3, lines 64-68) vulcanized rubber particles (See column 2, lines 24-31) with an aqueous coating mixture of a dispersion of organic or inorganic pigment (See column 2, lines 55-61) containing water as solvent, dispersing agent, rheological additives, surfactants, etc. (See column 2, lines 62-65) and acrylic polymer resin (See column 1, lines 46-54) to color coat the rubber particles thereby forming weather resistant and color-fast rubber particles (See column 2, lines 38-43) for the use as a surface covering material (See column 1, lines 6-9).

The Examiner Note: Tg of the acrylic emulsion polymer generally fall within the claimed range of about -70^0C – $20\ ^0$C.

Jakubisin et al fail to teach colored rubber particles are prepared in two steps by first color coating the rubber particles by mixing the rubber particles with dispersion of pigments,

then adding an emulsion polymer to the color coated rubber particles to form a protective film around the color coated rubber particles (Claims 9, 18).

JP62131050 teaches that color coating resin particles of e.g. acrylic-styrene resin in two steps by first color coating the resin particles with a pigment or dye, then adding a resin emulsion such as an acrylic resin emulsion, to the colored resin particles and heating the applied the acrylic resin emulsion coating thereby obtaining colored resin particles coated with the acrylic resin film, allows achieving colored resin particles which are free from bleeding or blotting of color, have excellent flow characteristics and workability (See Abstract, page 2, column 2, paragraph 2). In other words, a secondary reference of JP62131050 is relied upon to show that color coating resin particles of, e.g. acrylic-styrene resin, in two steps wherein the coated color is protected by polymer coating provides the colored resin particles with no bleeding or blotting of color and with excellent flow characteristics and workability.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have colored rubber particles in Jakubisin et al in two steps, wherein the rubber particles are first coated with an aqueous dispersion of pigment or dye, then the colored rubber particles further coated with emulsion polymer with the expectation of providing the desired colored resin particles which are free from bleeding or blotting of color and have excellent flow characteristics and workability since JP62131050 shows that color coating resin particles of, e.g. acrylic-styrene resin, in two steps wherein the coated color is protected by polymer coating provides the colored resin particles with no bleeding or blotting of color and with excellent flow characteristics and workability.

The Examiner Note: carrying out two-step coating of rubber particles in Jakubisin et al in view of JP62131050 would be within the level of ordinary engineering skill.

As to claims 12, 14, Jakubisin et al in view of JP62131050 fail to teach that the aqueous pigment dispersion has a total solids content of about 25 to 65 percent (Claim 12); the amount of said aqueous pigment dispersion in said mixture is about 0.01 to about 8.00 weight percent of said vulcanized rubber particles (Claim 14).

It is held that concentration limitations are obvious absent a showing of criticality. Akzo v. E.I. du Pont de Nemours 1 USPQ 2d 1704 (Fed. Cir. 1987).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have discovered the optimum or workable ranges of concentration limitations (including those of claims 12 and 14) in Jakubisin et al in view of JP62131050 by routine experimentation in the absence of a showing of criticality.

9. The prior art made of record and not relied upon is considered pertinent to applicant disclosure.

Wang et al (US 6,403,706) teaches that organic elastomeric particles comprise a styrene butadiene copolymer, a carboxylated styrene butadiene copolymer, an acrylic polymer, a styrene acrylic copolymer a polyvinyl acetate, an acrylonitrile-butadiene-styrene copolymer, an acrylonitrile polymer, an acrylonitrile-butadiene, etc. (See claim 5).

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (571) 272-1429. The examiner can normally be reached on Mo-Thur. 9:00-7:30, Mo-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for all communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

ET Soy

Elena Tsoy
Examiner
Art Unit 1762

January 13, 2004